

## Product Specification Sheet

**Product:** Human Buffy Coat Preparation

**Code:** R614-0100

**Lot #** 999410

**Size:** 100 ul

**Physical State:** Frozen cell pellet

**Composition:** Leukocytes, trace amounts of red blood cells and other components

**Preparation Method:** Buffy coat preparations are separated after a single low-speed centrifugation to remove the platelet rich plasma, buffy coat layer and erythrocytes (RBC). Buffy coat preparations are generally enriched for leukocytes (WBC) and contain trace amounts of red cells and other blood components. Further purification of leukocytes occurs by sedimentation by [Percoll™](#) gradient centrifugation.

**Background:** Blood is a complex mixture of cells, proteins, metabolites and many other substances. About 56% of human blood volume is comprised of cells, more than 99% of which are erythrocytes. Human erythrocytes and thrombocytes (platelets, 0.5% blood components) do not contain nuclei. Leukocytes (0.3% of blood components), also referred to as peripheral blood mononuclear leukocytes or PBMC, do contain nuclei. Blood samples may vary widely in leukocyte (granulocytes, lymphocytes and monocytes) concentration depending on the health of the donor. Healthy blood contains less than  $10^7$  leukocytes per ml, while blood from an infected donor may have ten fold higher leukocyte concentrations.

**Buffer:** This anticoagulant is composed of 8.0 mg/ml Sodium Citrate, adjusted to pH 7.4.

**Stabilizer:** None

**Preservative:** None

**Application(s):** Suitable for use as a source of nucleated PBMC.

**Storage Conditions:** Store vial at  $-70^{\circ}$  C prior to opening. Avoid cycles of freezing and thawing.

**Note:** This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information.

No test method can provide total assurance that the hepatitis B virus, hepatitis C virus, human immunodeficiency virus, or any other infectious agents are absent. Thus, all blood products, including purified proteins derived from human blood sources, should be handled at Biosafety Level 2 as recommended by the CDC\NIH manual entitled [Biosafety in Microbiological and Biomedical Laboratories](#) for potentially infectious human serum, blood specimens or proteins derived from same.

Source material for the human blood product supplied to your facility has been tested for the detection of HIV antibody, Hepatitis B surface antigen, antibody to Hepatitis C, HIV 1 antigen(s), antibody to HTLV - I/II, and syphilis by FDA guidelines. All units were found to be non-reactive/negative for these tests. All human blood source material is collected in FDA licensed centers and is tested with FDA approved test kits.